

NATURAL RESOURCES CONSERVATION SERVICE
Wyoming
CONSTRUCTION SPECIFICATIONS
FOR
IRRIGATION WATER CONVEYANCE
(GALVANIZED STEEL DITCH AND CANAL LINING)

(Owner/Operator)

(Project Title)

GENERAL

Installation shall be in accordance with an approved design and plan. Details of construction shown on the drawings but not included herein are considered as a part of this specification. Construction activities shall be in accordance with applicable OSHA regulations.

FOUNDATION PREPARATION

The foundation area for all ditch embankments and/or ditch pads shall be cleared of all trees, weeds, roots, sod, loose rock or other materials not suitable for the subgrade.

DITCH PADS/EMBANKMENTS

Fill materials shall be free of brush, roots, sod, large rocks or other material not suited for making compacted fills. The moisture content and methods of placing the material shall be such that a firm, stable ditch pad will result. The fill materials shall be placed in horizontal lifts of such thickness that compaction density of fills is similar to adjacent undisturbed earth materials. However, prior to compaction the thickness of individual layers being compacted by mechanical equipment shall not exceed 8 inches.

EXCAVATION

Excavations for ditch linings shall be to the neat lines of the specified cross section and finished with a smooth, firm surface. Over excavated areas shall be backfilled with moist soil compacted to the density of the surrounding soil materials.

GALVANIZED STEEL

Galvanized lining material shall equal or exceed the requirements of ASTM A 525 "General Requirements for Steel Sheet, Zinc Coated (Galvanized) by the Hot-Dip Process". The minimum thickness of the lining material shall be 24 gauge for individual sheets 84 inches or less in width and 22 gauge for wider sheets. The minimum thickness of steel sheets used in bulkheads and related structures shall be 20 gauge. The galvanized coating shall be G 90, 0.90 ounces per square-foot (total both sides) or heavier.

The edges of the lining sheets shall be rolled or pressed into a shape that will provide added strength at the corners and a firm anchorage into the ditch bank berm at the top of the lining.

PLACEMENT

Fasteners used in the assembly of liners shall be zinc or cadmium plated.

Joints shall be filled with sealant material capable of withstanding the temperature variations expected at the site. Joints shall be flexibly joined to absorb changes in length from expansion/contraction of the lining due to changes in temperature and shall be constructed to remain watertight.

The completed work shall conform to the lines, grades and the cross-sectional dimensions shown on the drawings.

The anchorage section of the lining shall be covered with earth backfill.

CONSTRUCTION TOLERANCE

No abrupt deviations shall be permitted from design grade or horizontal alignment. Finished lining grades should not vary above or below design grade by more than 0.1 feet for linings designed with less than 6 inches freeboard and shall not vary more than 0.2 feet for linings with 6 inches plus freeboard.

CLEAN-UP

After construction the site shall be cleared of all unused materials.

ADDITIONAL SPECIFICATIONS